

MODIFICATION INSTRUCTIONS for the *Kodak X-Omat* MULTILOADER 300 Service Code 3058 Modification No. 27

Kodak X-Omat 270 RA PROCESSOR Service Code 3059 Modification No. 18

Both are Type 1 Required

Purpose:

- Install new style RACK SPRINGS that are more resistant to corrosion than the existing RACK SPRINGS.
- Install new style Developer and Fixer replenishment FITTINGS to minimize chemical leakage from the current FITTINGS.
- Install new style HEAT EXCHANGER FITTINGS to minimize leakage from the current HEAT EXCHANGER connections.
- Install a new WASH TANK CLIP to increase the volume of water around the HEAT EXCHANGER in the WASH TANK to decrease false “Loss of Developer Cooling Ability” errors.



Important

Use qualified service personnel to install this modification.



HEALTH SCIENCES DIVISION



PLEASE NOTE The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

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This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Service Effects: See Page 5 for changes to Part Numbers

Special Requirements: None

Serial Numbers: See Page 4

Installation Time: 1.5 hours

Special Tools: 3 CLAMPS TL-2170

Parts Status: Available at Service Parts Management, September 1995

Parts Requirements: Modification Kit 5B6766, see Page 5

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Section 1: Serial Numbers and Parts Information**Serial Numbers****Important**

Check the Serial No. on the Processor and in the tables below. It may not be necessary to do the whole Mod on your Processor.

Kodak X-Omat 270 RA PROCESSOR

| Processor Serial No. Range: | Action Required: (See "Parts Requirements" on Page 5) | |
|--|---|-------------------------------------|
| 1930 and below | Install Groups 1, 2, 3, and 4 parts | Do Section 2 through Section 7 |
| 1931 to 1980 | Install Groups 2, 3, and 4 parts only | Do Sections 2, 4, 5, 6, and 7 |
| 1981 to 2089 | Install Groups 3 and 4 parts only | Do Sections 2, 5, 6, and 7 |
| 2090 to 2134 | Install Group 4 parts only | Do Sections 2, 6 and 7 |
| 2135 to 2220 | Mod 18 was factory installed. The 18 was not circled on the Mod Label | Circle 18 on the MODIFICATION LABEL |
| 2221 and above | Modification 18 is factory installed | None |

Kodak X-Omat MULTILOADER 300

| Processor Serial No. Range: | Action Required: (See "Parts Requirements" on Page 5) | |
|--|---|-------------------------------------|
| 919 and below | Install Groups 1, 2, 3, and 4 parts | Do Section 2 through Section 7 |
| 920 to 949 | Install Groups 3 and 4 parts only | Do Section 2, 5, 6, and 7 |
| 950 to 964 | Install Group 4 parts only | Do Section 2, 6, and 7 |
| 965 to 984 | Mod 27 was factory installed. The 27 was not circled on the Mod Label | Circle 27 on the MODIFICATION LABEL |
| 985 and above | Modification is factory installed | None |

Changes to Existing Parts

| Qty. | Existing Part No. | New Part No. | New Part Description |
|------|------------------------|---------------|----------------------|
| 2 | 246580 | 5B6165 | RACK SPRING |
| 4 | 459344 | 1C7106 | RACK SPRING |
| 6 | 474239 | 1C7107 | RACK SPRING |
| 2 | 1C4520 | 1C7113 | FITTING |
| 2 | 562602 or 990418 | 5B6156 | BARBED FITTING |
| 2 | 779382 | 5B6151 | FORMED TUBING |
| 2 | 246801 | 246803 | HOSE CLAMP B |
| 1 | 943683 | 5B6750 | WASH TANK CLIP |

Parts Requirements

Modification Kit 5B6766 includes:

| Qty. | Part No. | Description |
|------|----------|---------------------------|
| 1 | 5B6964 | Modification Instructions |

Group 1:

| | | |
|---|--------|-------------|
| 2 | 5B6165 | RACK SPRING |
| 4 | 1C7106 | RACK SPRING |
| 6 | 1C7107 | RACK SPRING |

Group 2:

| | | |
|---|--------|---------|
| 2 | 1C7113 | FITTING |
|---|--------|---------|

Group 3:

| | | |
|---|--------|----------------|
| 2 | 5B6156 | BARBED FITTING |
| 2 | 5B6151 | FORMED TUBING |
| 2 | 246803 | HOSE CLAMP B |
| 2 | 532378 | O-RING SEAL |

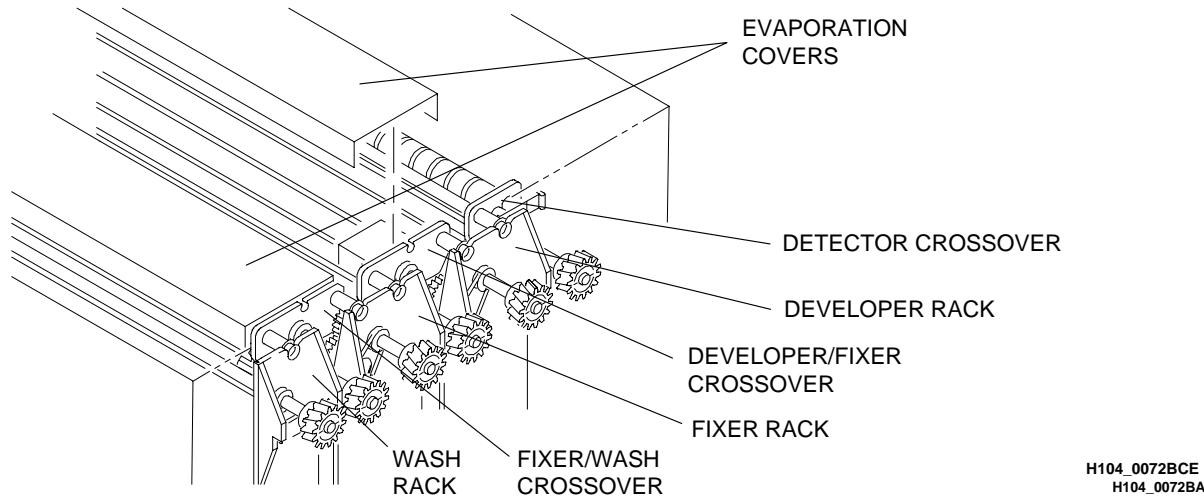
Group 4:

| | | |
|---|--------|----------------|
| 1 | 5B6750 | WASH TANK CLIP |
|---|--------|----------------|

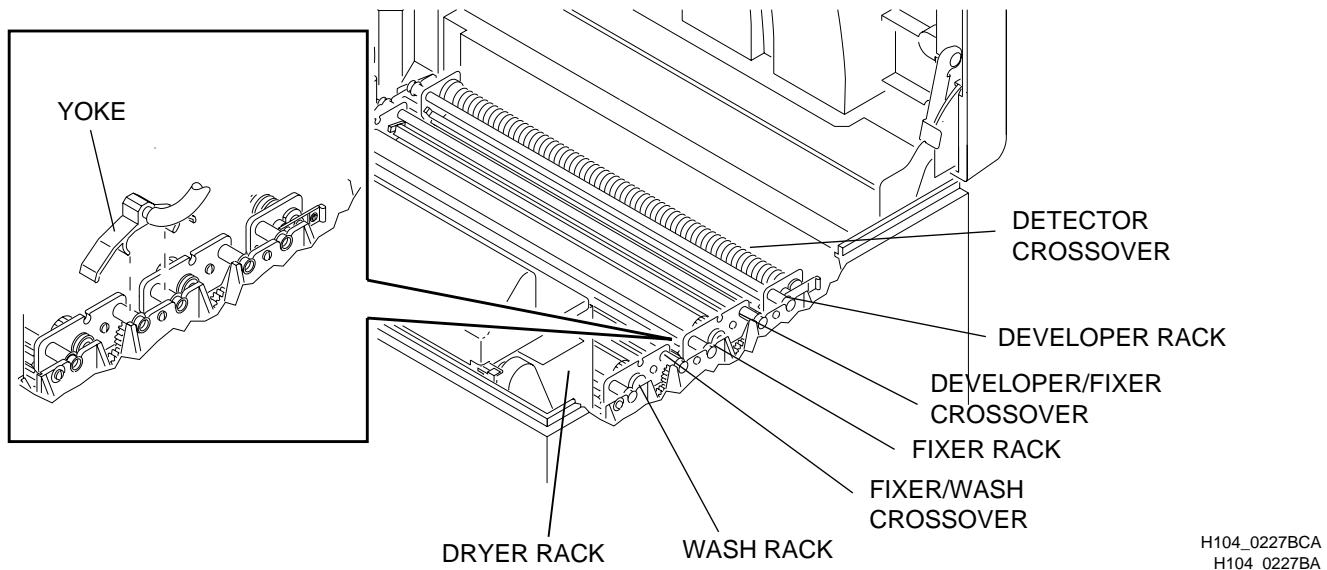
Section 2: Preliminary Procedure

- [1] De-energize the PROCESSOR.
- [2] Move the main wall CIRCUIT BREAKER to “OFF”.
- [3] For the 270 RA PROCESSOR only, lift the TOP COVER and remove:
 - DRIVE SIDE PANEL
 - WET SECTION COVER
 - TOP EXIT ASSEMBLY
- [4] For the MULTILOADER 300 only, extend the PROCESSOR and remove:
 - DRIVE SIDE SAFETY COVER
 - WET SECTION COVER

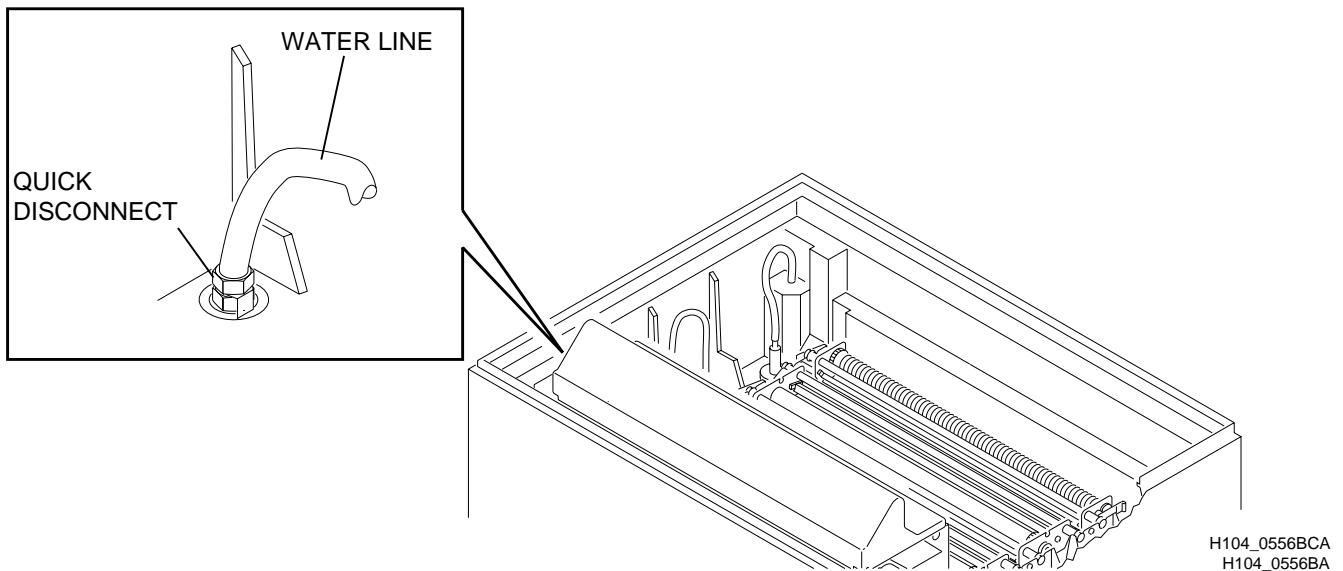
Identifying the RACKS and CROSSOVERS



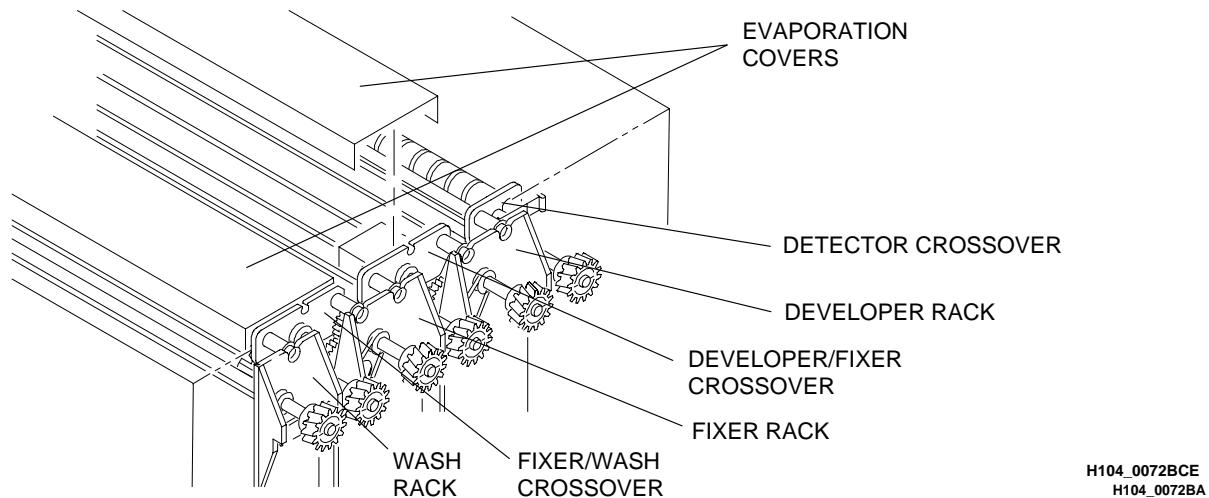
- [5] Remove the EVAPORATION COVERS.



- [6] Disconnect the YOKE from the CROSSOVERS.



[7] Disconnect the water QUICK DISCONNECT from the TANK.

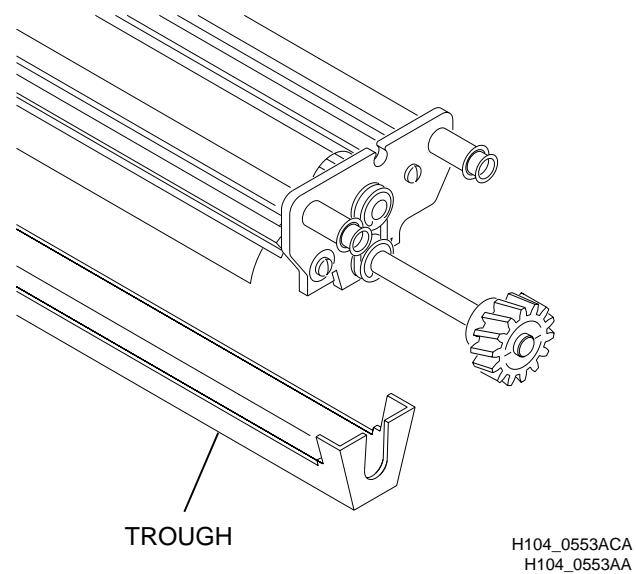


[8] Remove:

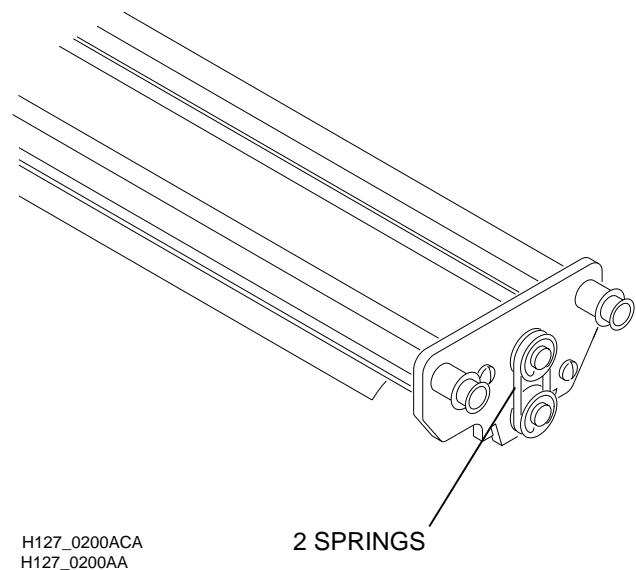
- DEVELOPER/FIXER CROSSOVER
- FIXER/WASH CROSSOVER
- WASH RACK
- DRYER RACK

Section 3: Installing the New SPRINGS

Installing the New SPRINGS in the CROSSOVERS

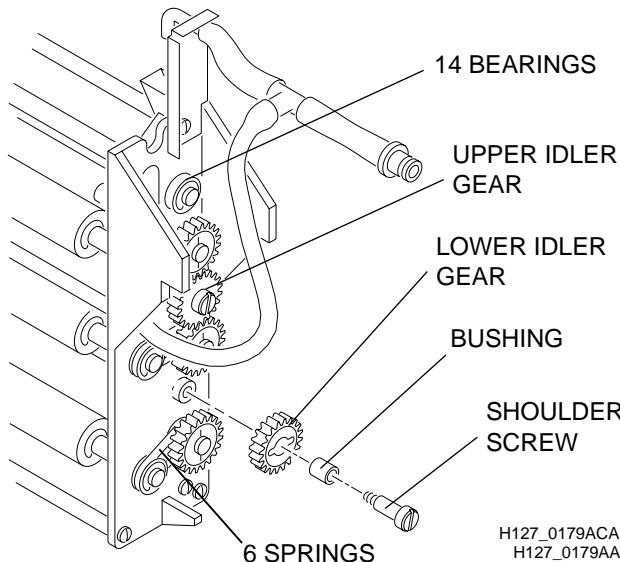


- [1] Remove the TROUGHS from the CROSSOVERS.



- [2] Remove and discard the 2 SPRINGS from the DEVELOPER/FIXER CROSSOVER and the FIXER/WASH CROSSOVER.
- [3] Install the 2 new SPRINGS, Part No. 1C7106, in both the DEVELOPER/FIXER CROSSOVER and the FIXER/WASH CROSSOVER.
- [4] Install the TROUGHS on the CROSSOVERS.

Installing the New SPRINGS in the WASH RACK



[5] Remove from both the LOWER and UPPER IDLER GEARS on the WASH RACK:

- SHOULDER SCREW
- BUSHING
- IDLER GEAR

[6] Remove and discard the 6 SPRINGS from the WASH RACK

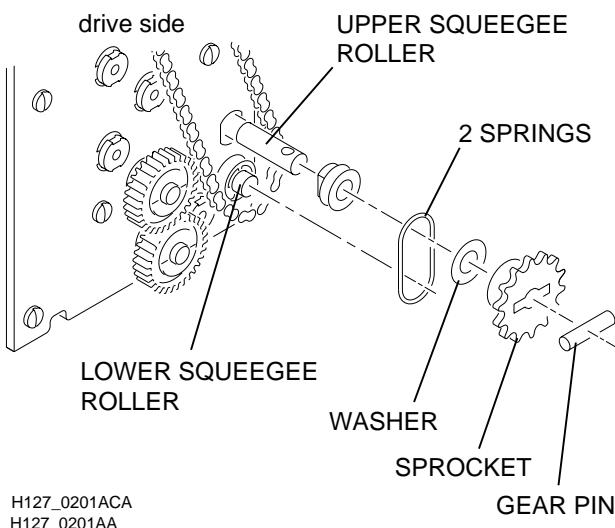
- a. To remove the top SPRING on the non-drive side of the RACK, do the steps below.
 1. Remove the SPRING from around the BEARING.
 2. Place the SPRING between the teeth of the GEAR.
 3. Rotate the GEAR.

[7] Install the 6 new SPRINGS, Part No. 1C7107.

[8] Install the:

- IDLER GEARS
- BUSHINGS
- SHOULDER SCREWS

Installing the new SPRINGS in the DRYER RACK



[9] Remove the following parts from the UPPER SQUEEGEE ROLLER on the non-drive side of the DRYER RACK:

- SPRING and discard
- E-RING and keep

[10] For access to the GEAR PIN, move the UPPER SQUEEGEE ROLLER toward the drive side of the PROCESSOR.

[11] Remove from the drive side of the UPPER SQUEEGEE ROLLER:

- GEAR PIN
- SPROCKET
- WASHER
- SPRING and discard

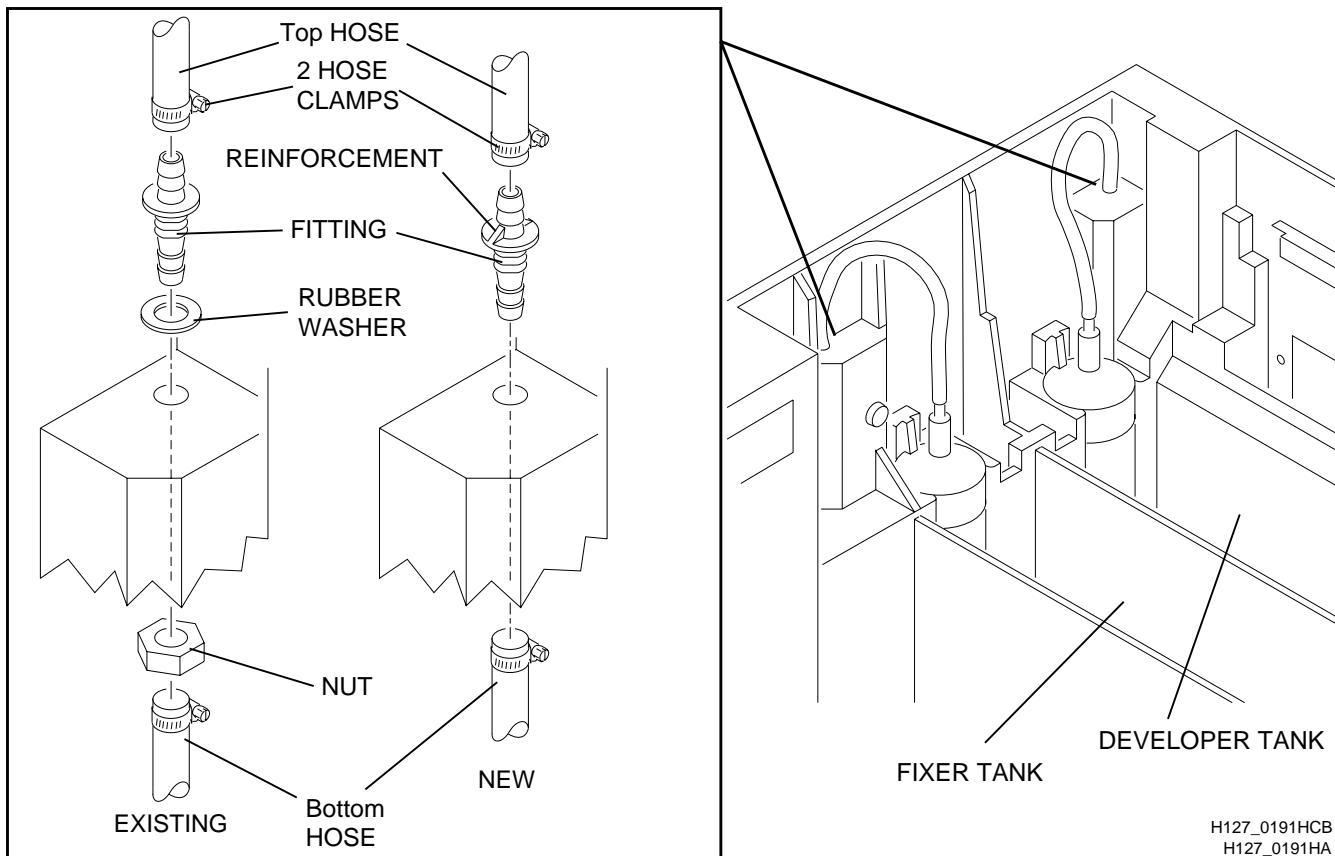
[12] Reverse Steps 9 through 11 to install the 2 new SPRINGS, Part No. 5B6165.

Section 4: Installing the New Replenishment FITTINGS



Caution

Chemical leakage may occur when you remove the FITTINGS.



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- [1]** Remove the existing FITTING, RUBBER WASHER, and NUT for the DEVELOPER and FIXER TANKS by doing the following for each FITTING:

- Loosen and disconnect the top and bottom HOSE CLAMPS.
- Remove the HOSE from each of the FITTINGS.
- Remove and discard the:
 - NUT
 - FITTING
 - RUBBER WASHER



Note
Do not use the RUBBER WASHER and NUT again.

- [2]** Install the new FITTINGS for the DEVELOPER and FIXER TANKS as follows:

- Install the FITTING between the top and bottom HOSE.
- Tighten the top and bottom HOSE CLAMPS to fasten the new FITTING.

Section 5: Installing the FITTINGS and FORMED TUBING

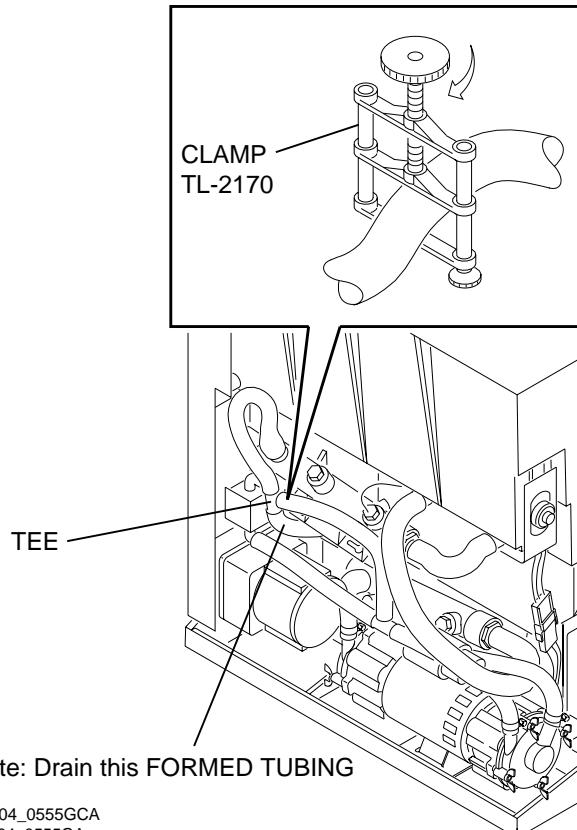
Removing the Existing FITTINGS and FORMED TUBING



Caution

DEVELOPER leakage may occur when you remove the HEAT EXCHANGER and FORMED TUBING.

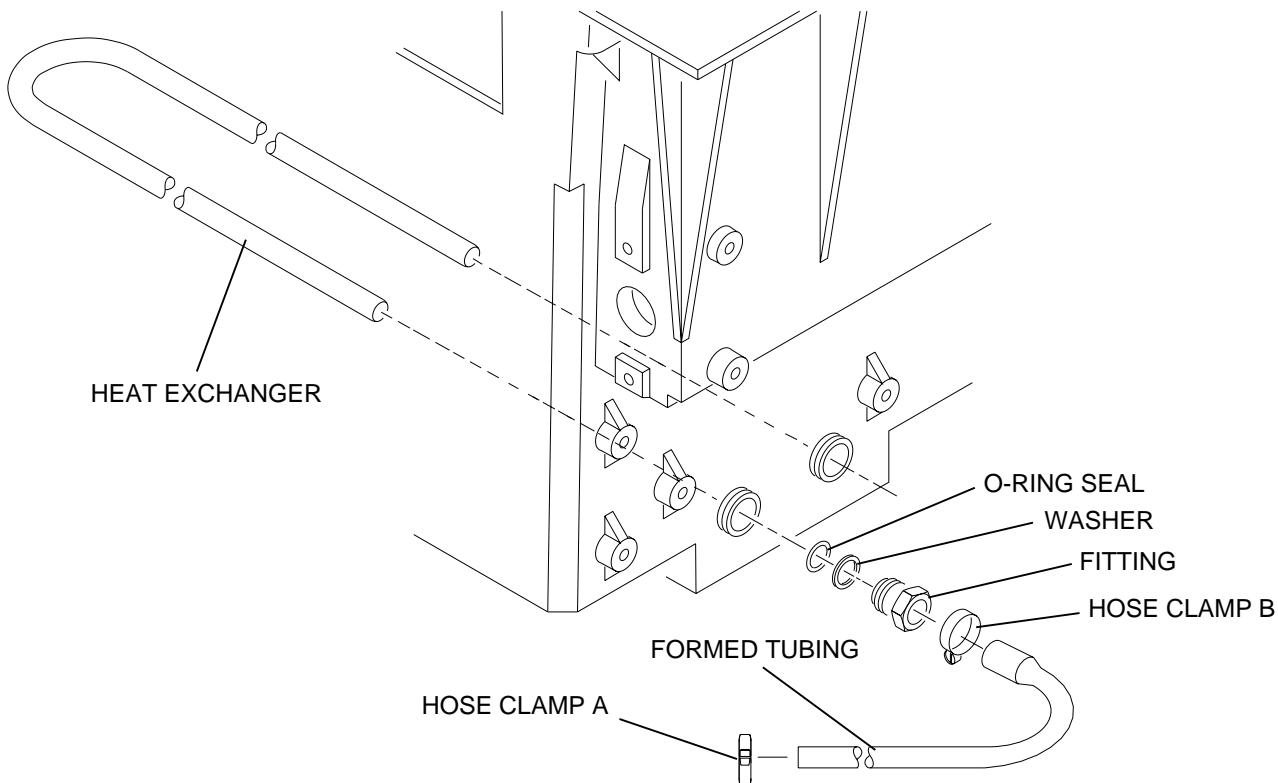
Installing the CLAMPS TL-2170



[1] See the figure above:

- (a) Install a CLAMP TL-2170 on each of the 3 FORMED TUBINGS connected to the TEE.
 - Install the CLAMPS TL-2170 close to the TEE.
- (b) Disconnect the FORMED TUBING, that requires draining, from the TEE. (See the figure above)
 - Keep the HOSE CLAMP A.
- (c) Loosen the HOSE CLAMP on the HEAT EXCHANGER end of the FORMED TUBING, and rotate the FORMED TUBING downward.
- (d) Remove the CLAMP TL-2170 and drain the FORMED TUBING into a container.

MODIFICATION INSTRUCTIONS, TYPE1



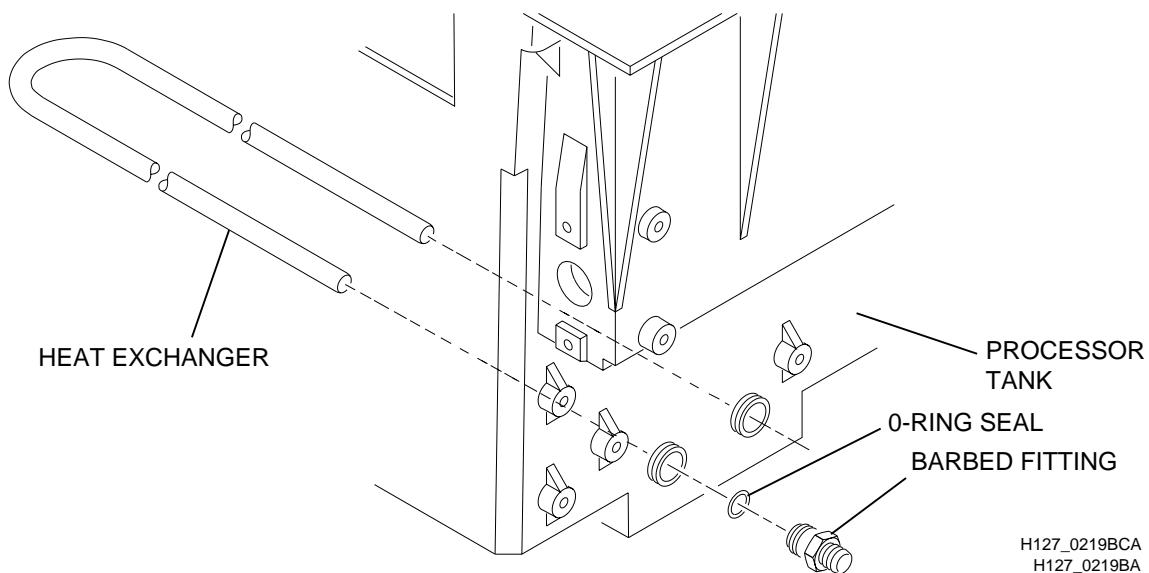
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[2] Remove the other HOSE CLAMP A.

[3] Remove and discard:

| Part Description | Qty. |
|------------------|------|
| HOSE CLAMP B | 2 |
| FORMED TUBING | 2 |
| FITTING | 2 |
| WASHER | 2 |
| O-RING SEAL | 2 |

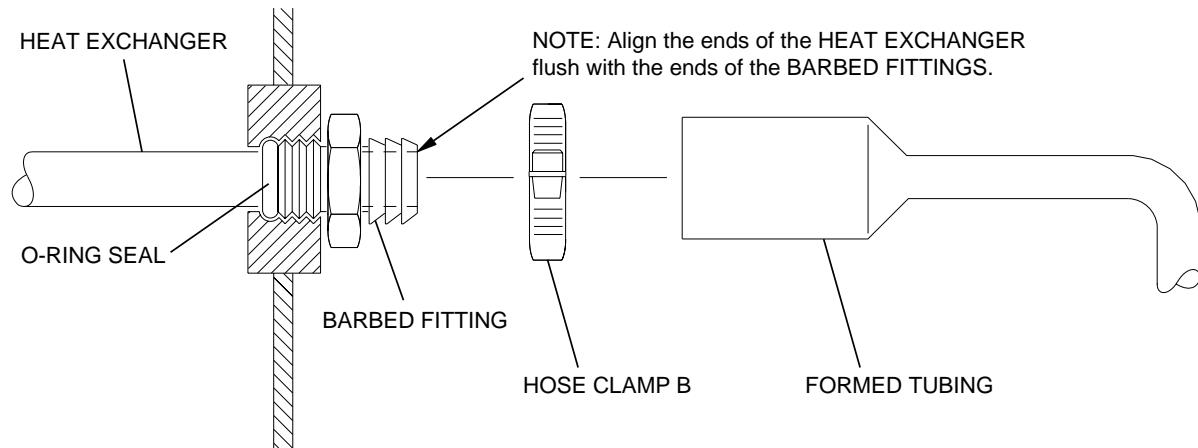
Installing the New BARBED FITTINGS



- [1] Place the ends of the HEAT EXCHANGER through the holes in the side of the PROCESSOR TANK.
- [2] Place a new O-RING SEAL on each end of the HEAT EXCHANGER.



Important
DO NOT use the existing WASHERS with the new BARBED FITTINGS.



- [3] Place a new BARBED FITTING onto each end of the HEAT EXCHANGER.
- [4] Loosely rotate the new BARBED FITTINGS into the holes in the side of the PROCESSOR TANK.

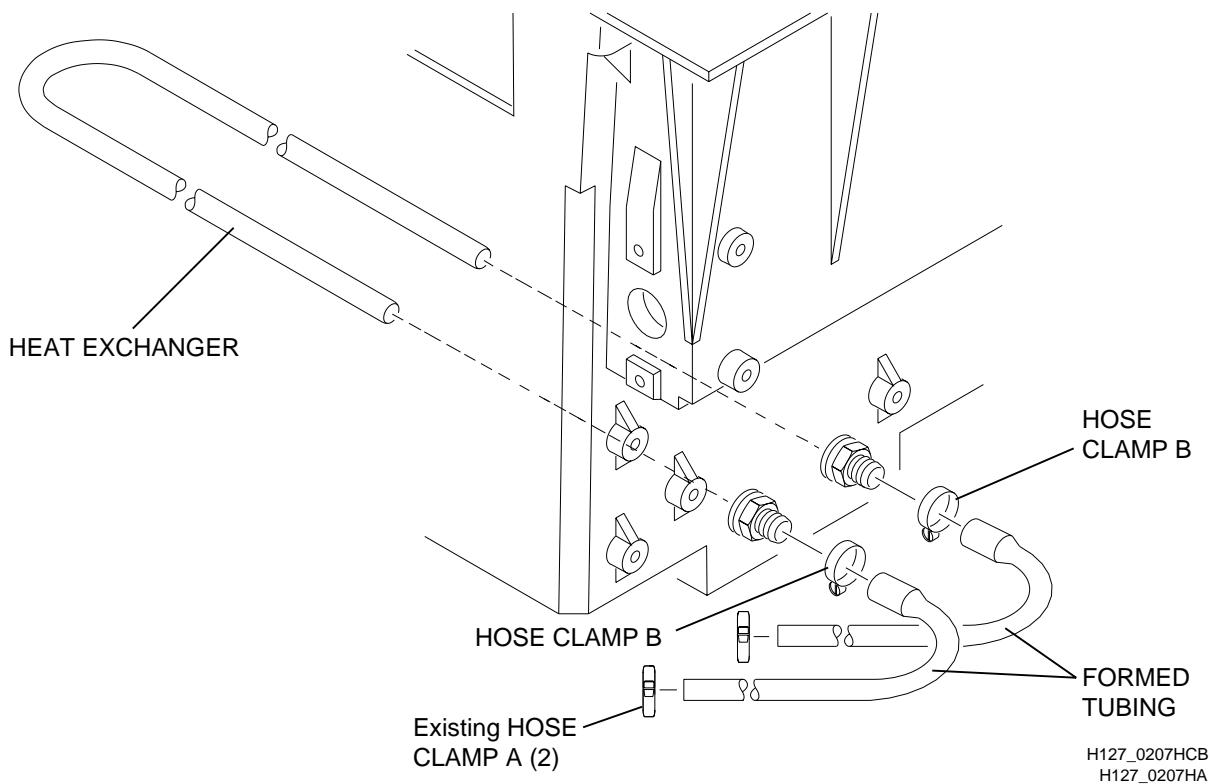


Caution

Do not tighten the BARBED FITTINGS more than necessary to correctly seat the O-RING SEALS. Incorrect installation of the BARBED FITTINGS will cause damage to the O-RING SEALS and fluid leakage.

- [5] Align the ends of the HEAT EXCHANGER flush with the ends of the BARBED FITTINGS and tighten the BARBED FITTINGS.

Installing the New FORMED TUBING and New HOSE CLAMPS



| Qty. | Part No. | Description |
|------|----------------------|---------------|
| 2 | 5B6151 | FORMED TUBING |
| 2 | From Step 2, Page 12 | HOSE CLAMP A |
| 2 | 246803 | HOSE CLAMP B |



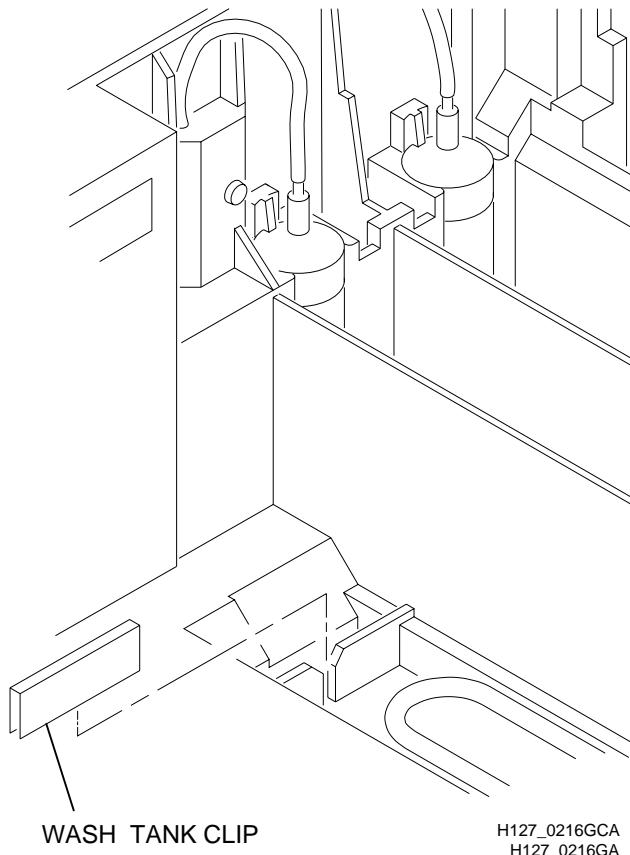
Important

Even when a CLAMP is correctly tightened at installation, cold flow or shrinkage of the FORMED TUBING will occur beneath the CLAMP. CLAMPS should be periodically checked and tightened, especially after FORMED TUBING replacement.

- [1] Install the new FORMED TUBING and HOSE CLAMPS, and tighten the HOSE CLAMPS.
- [2] Remove the remaining 2 CLAMPS TL-2170.

Section 6: Installing the New WASH TANK CLIP

WASH TANK



- [1] Remove and discard the existing WASH TANK CLIP.
- [2] Install the new WASH TANK CLIP.

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Section 7: Final Steps

[1] Install:

- WASH RACK
- FIXER/WASH CROSSOVER
- DEVELOPER/FIXER CROSSOVER
- DRYER RACK

[2] Connect the water QUICK DISCONNECT to the TANK.

[3] Connect the YOKE to the CROSSOVERS.

[4] Install the EVAPORATION COVERS.

[5] For the MULTILOADER 300 only, install:

- WET SECTION COVER
- DRIVE SIDE SAFETY COVER
- Move the PROCESSOR back into the MULTILOADER 300

[6] For the 270 RA PROCESSOR only, install:

- TOP EXIT ASSEMBLY
- WET SECTION COVER
- DRIVE SIDE PANEL

[7] Close the TOP COVER.

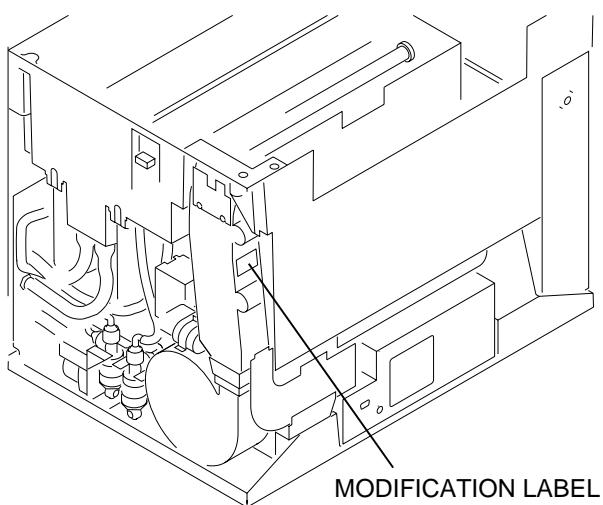
[8] Move the main wall CIRCUIT BREAKER to “ON”.

[9] Energize the PROCESSOR.

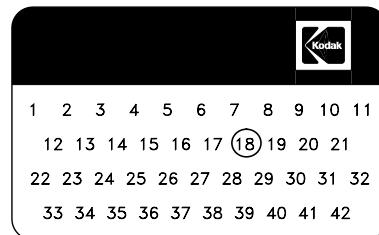
[10] Check for leakage from:

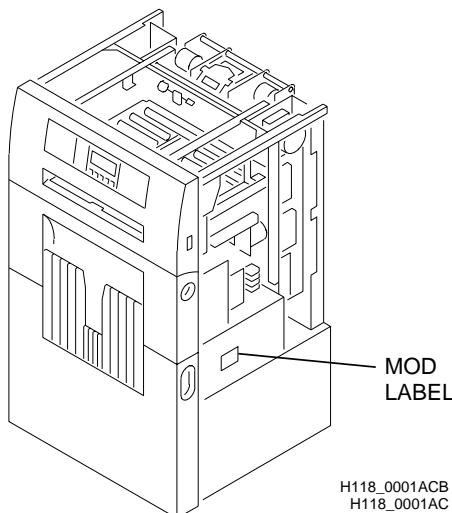
- HEAT EXCHANGER FITTINGS
- FORMED TUBING
- Replenishment FITTING on the DEVELOPER TANK
- Replenishment FITTING on the FIXER TANK

[11] Check for correct operation of the PROCESSOR.

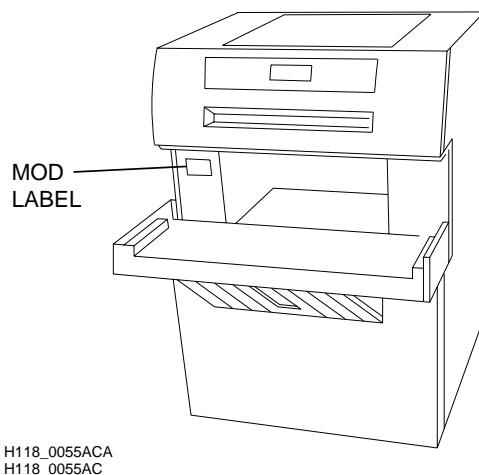
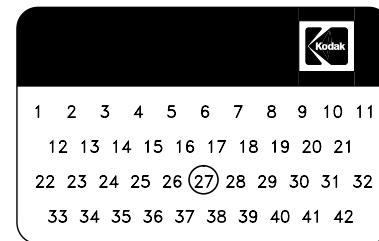


[12] For the *Kodak X-Omat 270 RA PROCESSOR* circle 18 on the MODIFICATION LABEL.

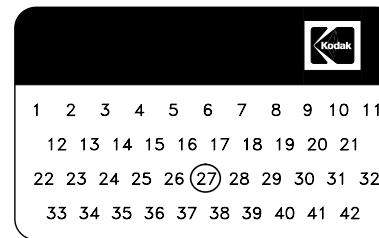




[13] For the MULTILOADER 300 Serial No. 1369 and below Circle 27 on the MODIFICATION LABEL.



[14] For the MULTILOADER 300 Serial No. 1370 and above Circle 27 on the MODIFICATION LABEL.



Publication History

| Print Date | Pub. No. | ECO No. | Affected Pages | File Name | Notes |
|------------|----------|----------|----------------|-----------------------|------------------------------|
| 28JUL95 | 5B6964 | 2592-327 | All | ma3058_27_28jul95.doc | New Modification Instruction |

